



W.W. BRUCE

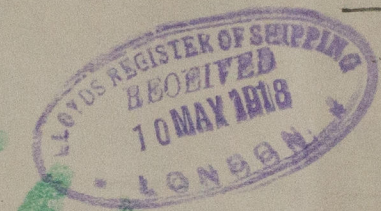
3-22-42

U.S. COAST GUARD

under
way.

Profile & Deck Plan
S.S. "Saline Sun" ^{pl 2790.}
Sun SB Co. no 2.
For filing with First Entry.
y/n "W. W. Bruce."

"W. W. Bruce"



RETAIR
RETAIR

W1002-0166



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SUN SHIPBUILDING CO.
CHICSTER, PA.
BLUE PRINT ROOM
Print No. 39
Made MAR 12 1918
For Dept. Mail

Midship Section
S.S. "Saline Sun" Pl. 290.
Sun SB Co. No 2.

In filing with First Entry
1/2 "W. W. Bruce"



RETAIN

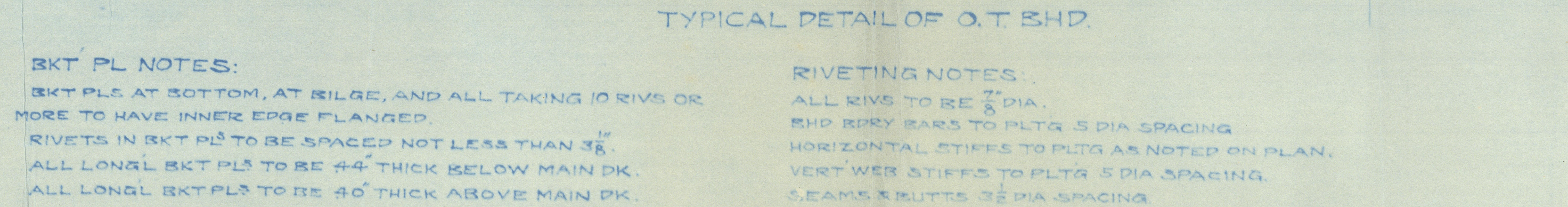
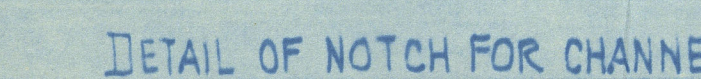
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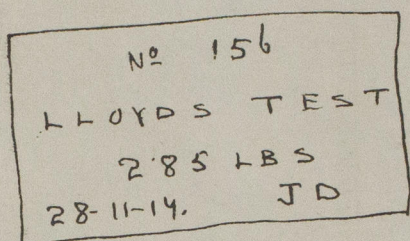
EQUIPMENT NO 41330			
2- POWER ANCHORS	STOCKLESS	100 LBS.	
1- "	"	"	7000 "
1- STREAM	"	"	2870 "
1- KENTZ	"	"	1360 "
300 PATHWAYS	2 1/2" STUD CHAIN	CABLE	
120 "	5" FIRE STEEL WIRE	HAWSER	
100 "	"	"	TOWLINE
400 "	"	8" MANILA HAWSERS	5 RWAR
<div> <div> RUDDER STOCK 1100A " PLATE 117 POST 2-08 PROPELLES POST 101-08 STEEL 10 1/2 X 2 1/2 TOTAL RUDDER AREA ABT 2' 6" OF PINTLES = 725 sq ft A & D = 74% SPEED OF VESSEL IN KNOTS PER HOUR = 100 </div> <div> } PLAN TO BE SUBMITTED </div> </div>			

BULK OIL STEAMER
LENGTH 430'-0" BREADTH 59'-0" DEPTH MLD 3
TRANS N° 92.25 LONGI N° 33694 1/2 UPPER PK 12 94
"SHEERWOOD SYSTEM" (PATENT)

SUN SHIPBUILDING CO.
CHESAPEOTE, VA.
BLUE PRINT ROOM
Print No. 48
Made MAR 12 1948
For Dept. *main*

1/2" "W. W. Bruce"

3. S. E. Scotch Boilers.
for
Sun Shipbuilding Co. Hull No 2.
SS. "SABINE SUN".
Pl. 2790.



Philadelphia, Pa.

Copy of Approved Plan.

RETAIN



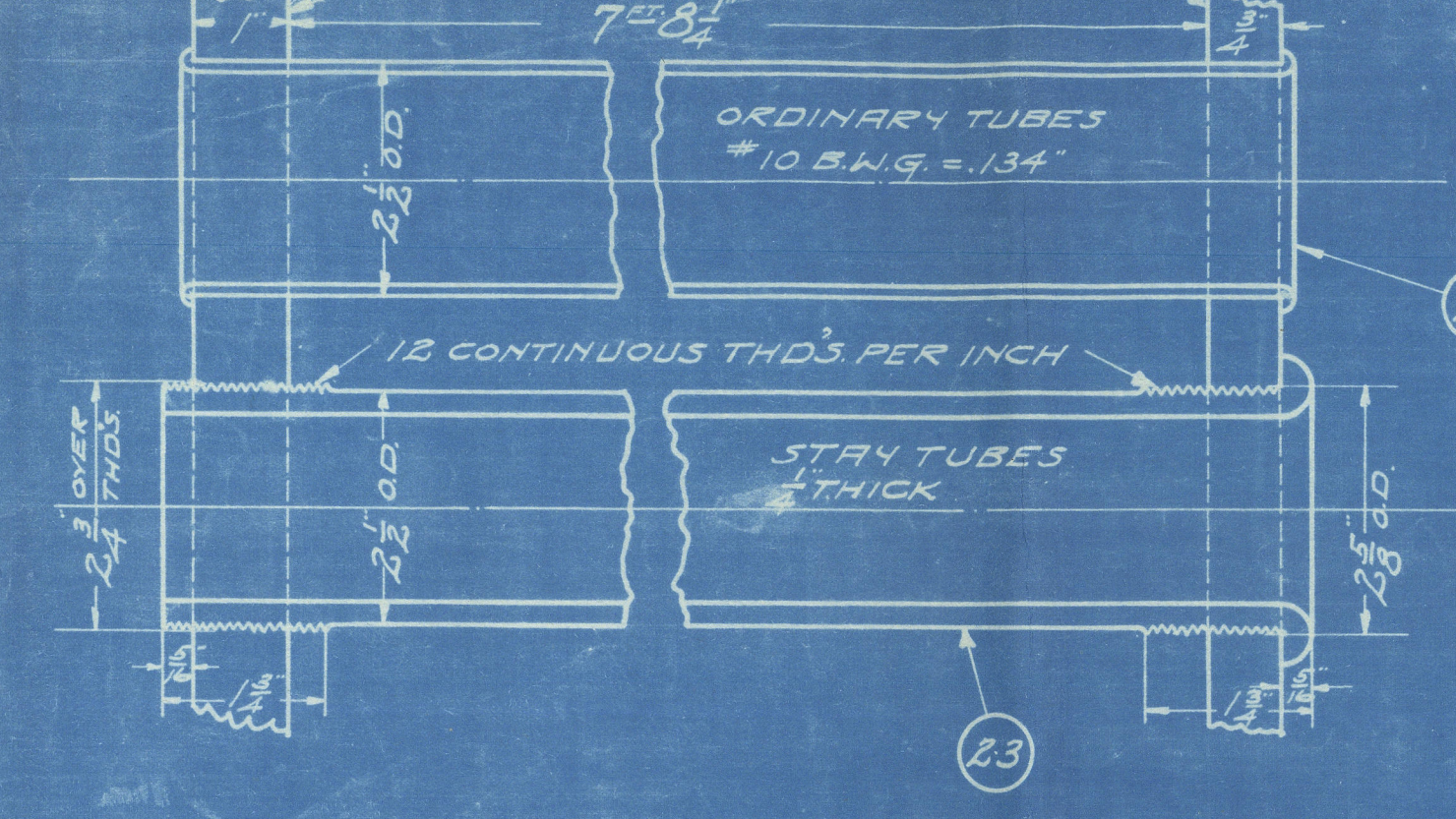
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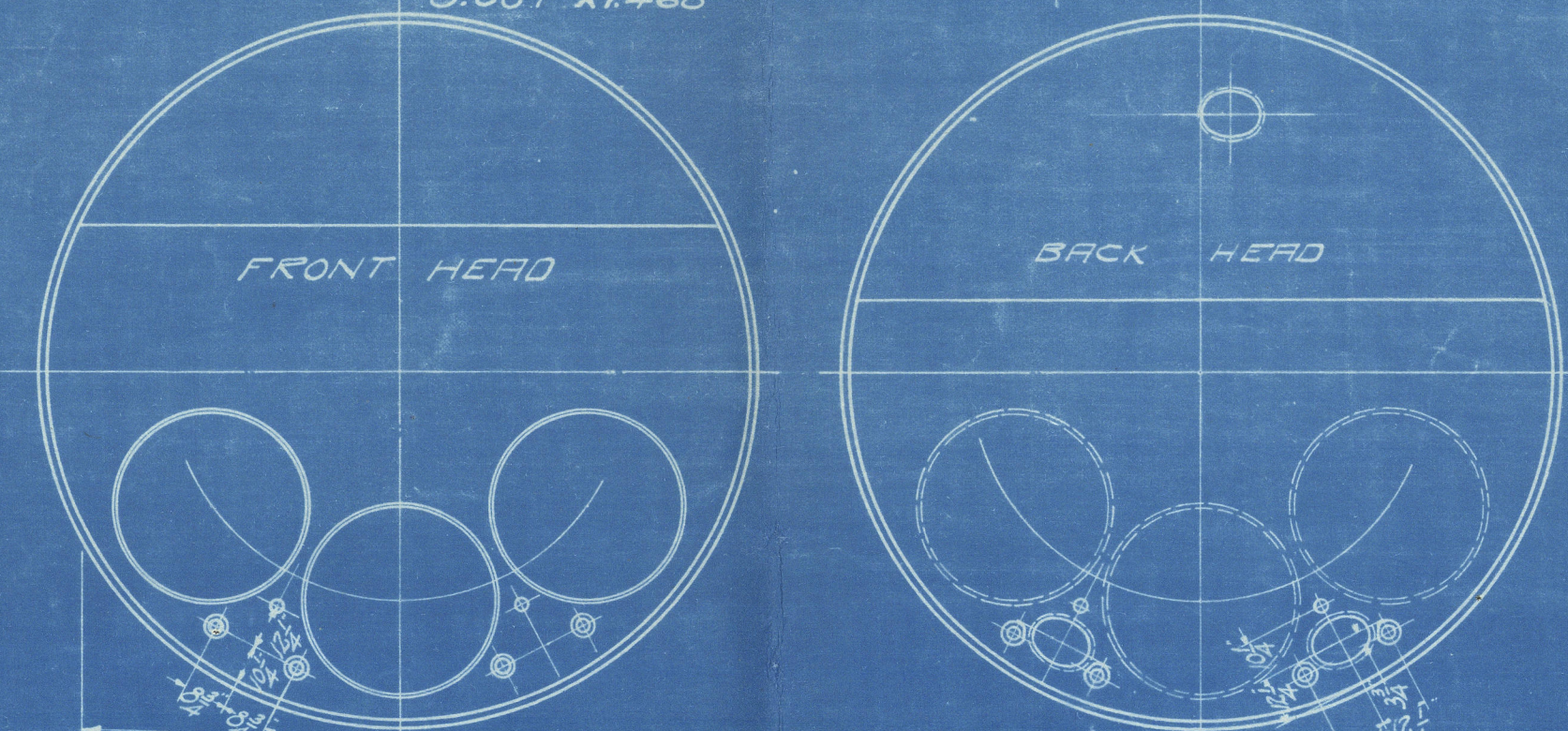
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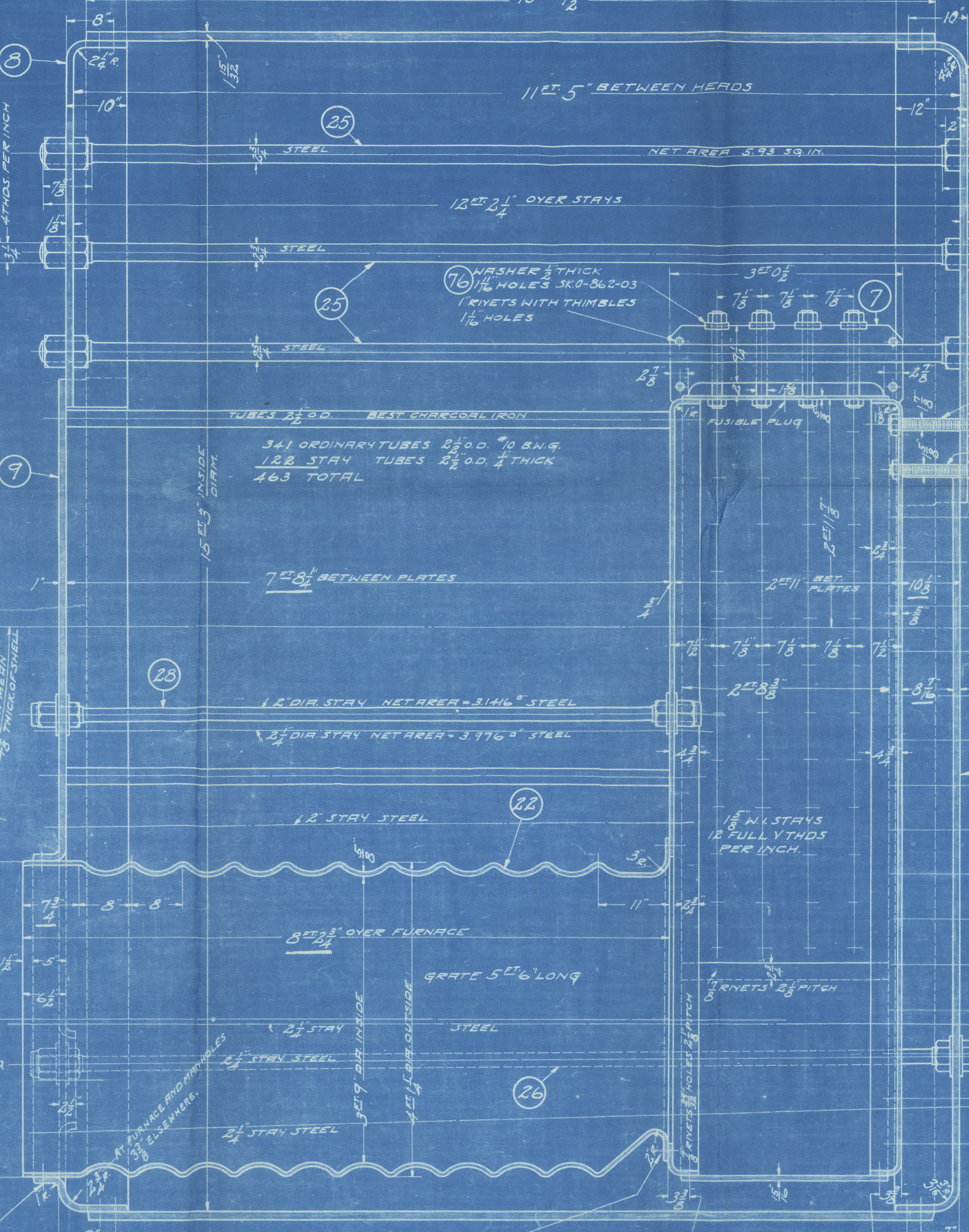
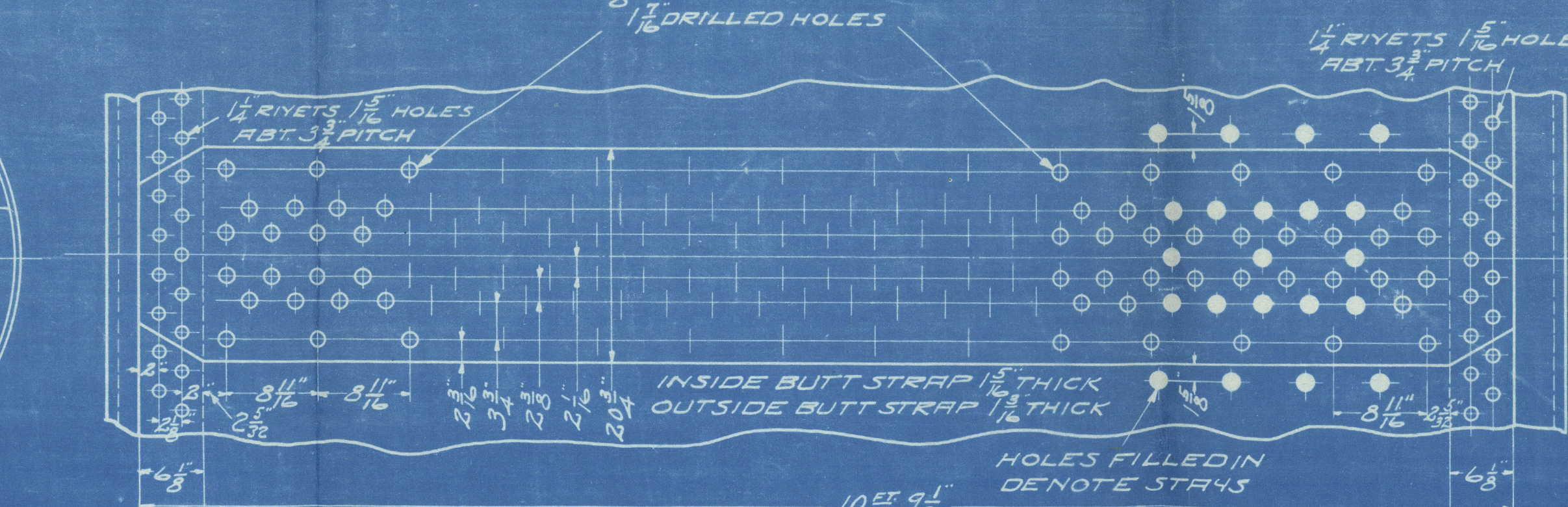
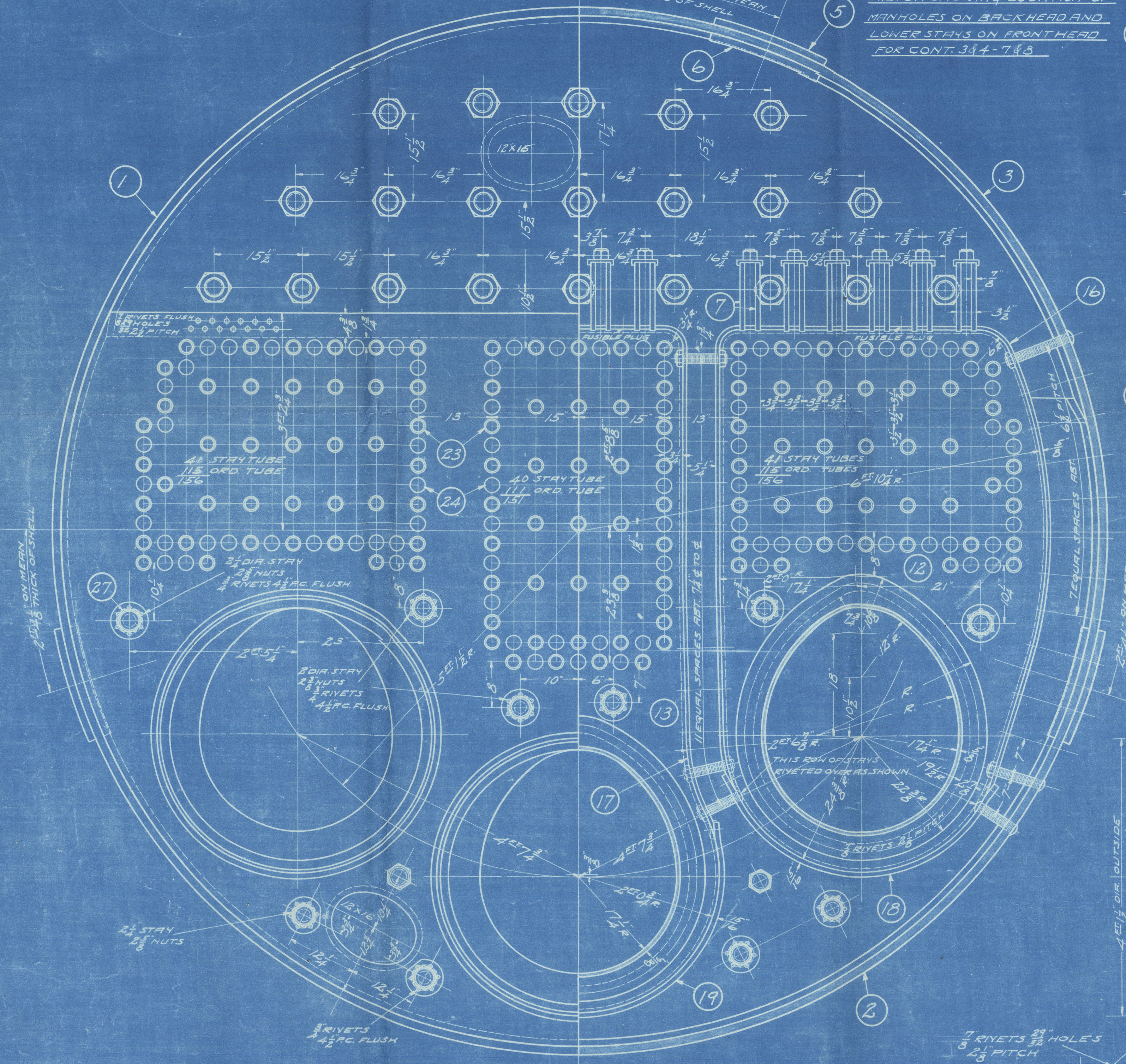


BUREAU OF COMMERCE & LLOYD'S RULES

PLATE $\frac{8.687 - 1.437}{8.687} \times 100 = 83.4\%$
RIVET $\frac{5 \times 1.623 \times 1.75 \times 85}{8.687 \times 1.468} \times 100 = 94.6\%$

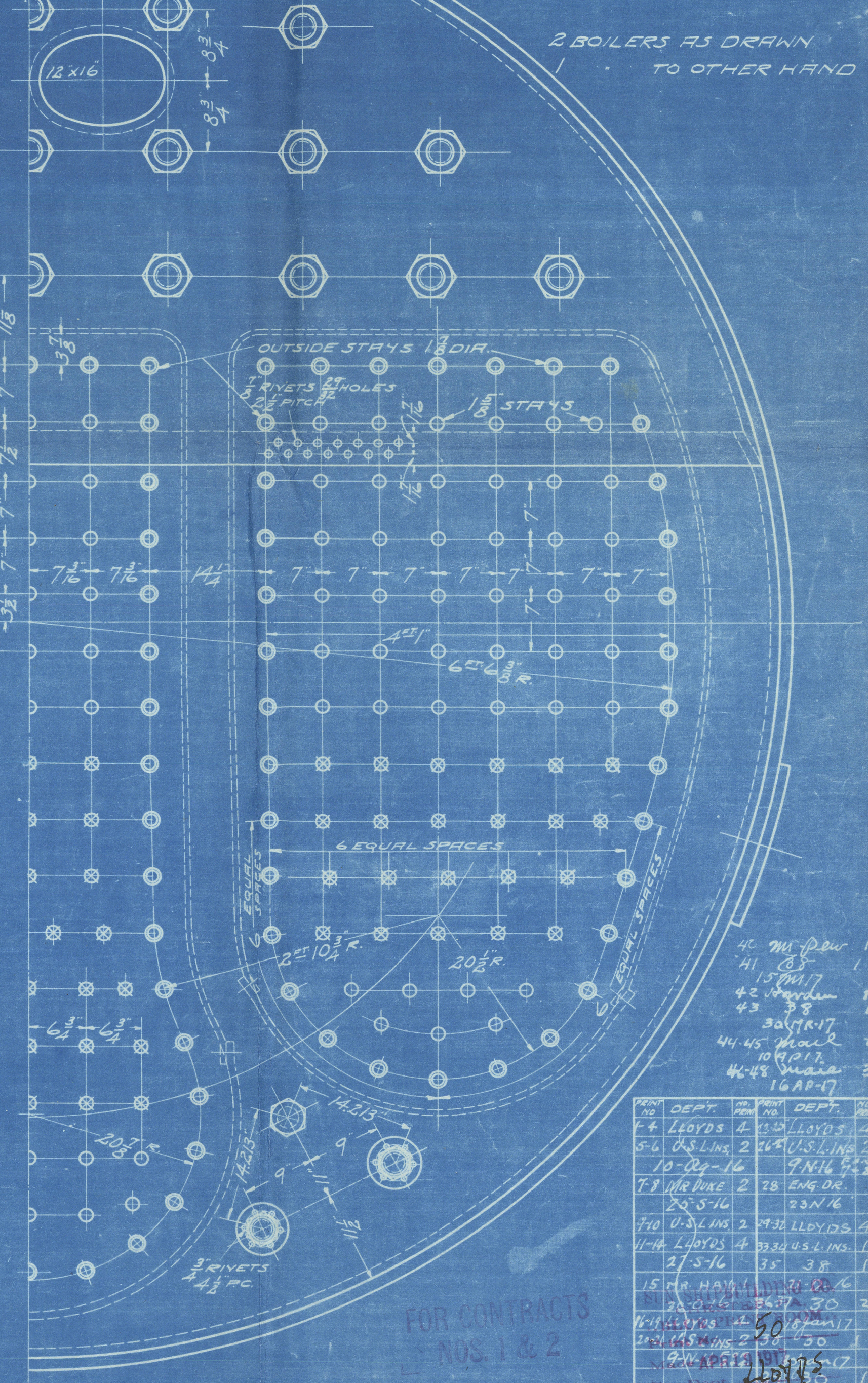


SKETCH SHOWING LOCATION OF MAINHOLES ON BACK HEAD AND LOWER STAYS ON FRONT HEAD FOR CONT. 344-743

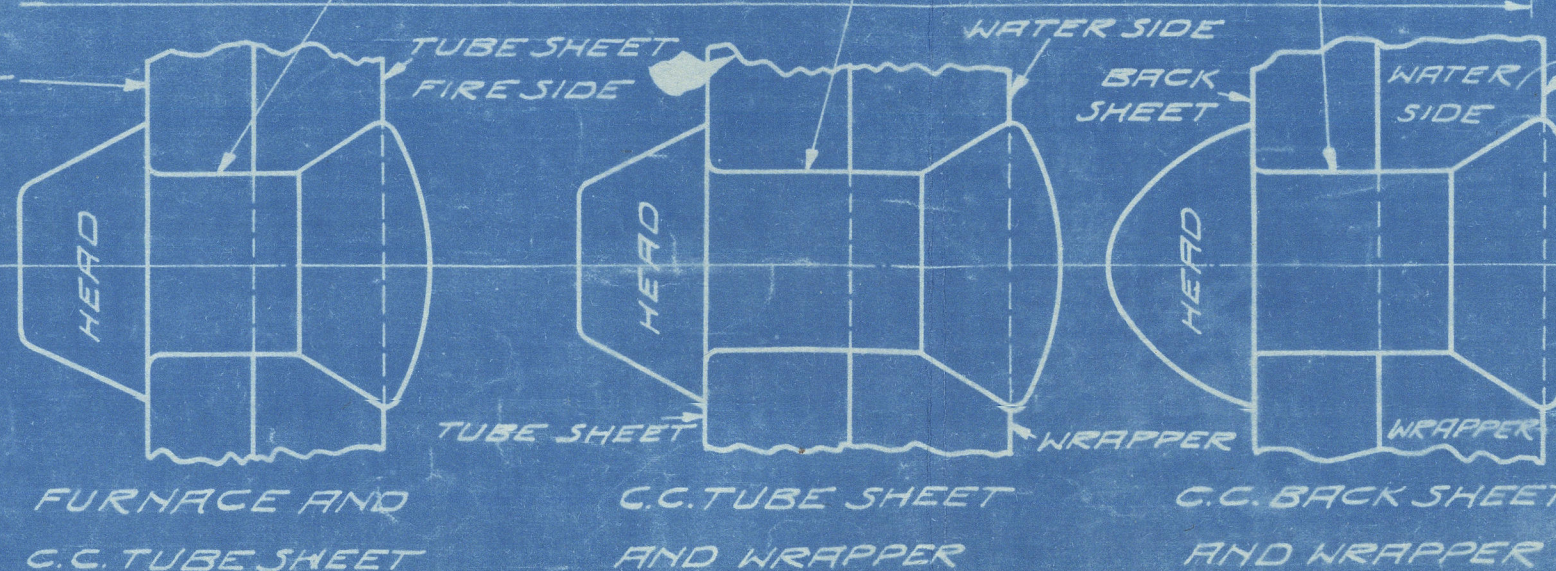


CONSTRUCTED UNDER THE BOARD OF SUPERVISING INSPECTORS, DEPT. OF COMMERCE & LLOYD'S RULES FOR 190 LBS. WORKING PRESSURE						ALTERATIONS	DATE	APPROVED
						DRILLING HO. CHANGED FROM 1/2" TO 5/8"	16-3-16	1/10/16
						SMALL PLATE WITH CHANGED FROM 21/2" TO 18" WITH HO. MANHOLES AND PATCH OF BUTT RIVETS CHANGED TO SUIT.	18-16-16	1/10/16
DESCRIPTION	THICKNESS	U.S. RULES	LLOYD'S RULES	BOILER DATA		ONE BOILER HEAT SURFACE		
SHELL	1/16	$P = \frac{60000 \times 1.648}{6 \times 91.5} = 120 \frac{1}{2}$	$P = \frac{2104 \times 1.648}{184 \times 4.68} = 20.4$					
FURNACE	5/8	$P = \frac{18000 \times 6.25}{47} = 207$	$P = \frac{1857 \times (10-2)}{49.25} = 20.4$					
TOP HEAD PLATE	1/8	$P = \frac{175 \times 18^2}{17.25} = 190.5$	$P = \frac{175 \times 18^2}{287.0625} = 196$					
TOP HEAD STAY	3/4	$P = \frac{1675 \times 155 \times 190}{5373} = 8306$	$P = \frac{10400 \times 5.93}{76.25 \times 15.5} = 237$					
TUBE PLATE	1/8	$P = \frac{375 \times 2.22 \times 75 \times 7000}{36.5 \times 3.75} = 224$	$P = \frac{1035 \times 2.22 \times 75 \times 7000}{35 \times 3.75} = 24.3$					
C.C. CROWN PLATE	5/8	$P = \frac{135 \times 10^2}{77.5} = 225$	$P = \frac{135 \times 10^2}{55.41} = 243$					
C.C. CROWN STAYS	1/8	$P = \frac{775 \times 7.25 \times 190}{1.694} = 6173$	$P = \frac{7500 \times 1.694}{775 \times 7.25} = 230$					
WRAPPER PLATE	5/8	$P = \frac{135 \times 10^2}{7.375} = 248$	$P = \frac{135 \times 10^2}{52.57} = 257$					
WRAPPER STAYS	1/8	$P = \frac{7.575 \times 7.25 \times 190}{1.694} = 5893$	$P = \frac{7500 \times 1.694}{7.575 \times 7.25} = 241$					
C.C. BACK PLATE	5/8	$P = \frac{135 \times 10^2}{7.375} = 240$	$P = \frac{135 \times 10^2}{52.57} = 250$					
C.C. BACK STAYS	1/8	$P = \frac{7.575 \times 7.25 \times 190}{1.694} = 6045$	$P = \frac{7500 \times 1.694}{7.575 \times 7.25} = 236$					
CROWN GIRDERS	9/16	$P = \frac{9.7 \times 9.25 \times 1.75}{13.65 \times 7.25 \times 7.5 \times 3} = 202$	$P = \frac{11650 \times 9.25 \times 1.75}{13.65 \times 7.25 \times 7.5 \times 3.5} = 237$					
WIDE WATER SPACE BOT. C.C.	1/8	$P = \frac{30(300 \times 9.37) - (8 \times 36.5)}{51.375} = 203$	$P = \frac{30(300 \times 9.37 - 35)}{51.375} = 239$					

TENSILE STRENGTH OF SHELL PLATES & GIRDERS 60,000 TO 70,000 LBS. FLANGE 58240 TO 67200 LBS. WORKING PRESSURE 190 LBS. PER SQ. IN. WATER TEST 285 " EVAPORATION 270 LBS. OF WATER PER SQ. FT. OF GRATE PER HR. 3/2" THIN SAFETY VALVE COMBINED AREA = 1324 FOR DETAILS OF BOTTOM HEAD STAY AND ETC. SEE DR. 1-862-3



NOTE:- ALL CALKING EDGES OF BOILER PLATE TO BE TO BE MACHINE PLANED. SEAMS, BUTTS AND LAPS TO FIT CLOSELY DRAIN UP METAL TO METAL & AFTER BEING RIVETED, CALKED INSIDE AND OUTSIDE. ALL REINFORCE PLATES TO BE CALKED.



ALL SCREW STAYS W.I. SCREEN STAYS ON BACK HEAD MARKED THUS \odot 1/2" DIA. NUTS 1/2" DEEP NET AREA .832" SCREEN STAYS ON BACK HEAD MARKED THUS \odot 1/2" DIA. NUTS 1" DEEP IN C.C. NO NUTS ON BACK HEAD NET AREA .1694" WRAPPER SCREEN STAYS 1/2" DIA. NUTS 1" DEEP GIRDER SCREW STAYS 1/2" DIA. NUTS 1/2" DEEP ALL SCREEN STAYS HAVE 12 FULLY THREADED PER INCH. ALL SCREEN STAYS TO HAVE 1/2" HOLE DRILLED 1/2" BEYOND INNER SURFACE OF PLATE. SCREEN STAYS ON BACK HEAD MARKED THUS \odot ARE RIVETED OVER ON BOTH ENDS.

THE SUN SHIPBUILDING CO. CHESTER PA. ENGINEERING DEPT. 15' 3" INSIDE DIA. 11' 5" B.W. HEADS. S.E. SCOTCH BOILER 190 LBS. WORKING PRESSURE. SCALE 1" = 1' 0" DATE 1-1-17 DR. BY TR. BY CHKD BY DR. NO. 1-862-1

$$\frac{430}{430} = 488$$

Winter Freeboard from deck line
Summer

8-6 1/2 ✓
8-0 1/2 ✓

FOR CONTRACTS
NOS. 1 & 2

1 78 1
2 87 1
3-6 LLOYDS +
12-JA-18

SUN SHIPBUILDING CO.
CHESTER, PA.
BLUE PRINT ROOM
Print No. 3
Made JAN 12 1918
For Dept. *Clayton*

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H1002-0163